

Figure 1 consists of 12 subplots arranged horizontally, each showing a histogram of the number of non-zero elements in the vector x_k for $k=1$ to $k=12$. The x-axis for all plots is labeled x_k and ranges from 0 to 10. The y-axis is labeled 'count' and ranges from 0 to 10. The histograms show a distribution that is roughly bell-shaped and centered around 5. The peak count increases from 10 for $k=1$ to 12 for $k=12$.

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